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SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER CHEN, QING	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/685,407

Applicant(s)

YOOK, HYUNGYOO

Examiner

Qing Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2007.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-30 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 06 November 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 20061106.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office action is in response to the amendment filed on January 29, 2007.
2. **Claims 1-30** are pending.
3. **Claims 1, 2, 6, 7, 9, 10, 13, 15, 17, 18, 21, 22, 24, 26, and 29** have been amended.
4. The objection to the oath/declaration is withdrawn in view of Applicant's submission of the supplemental oath/declaration.
5. The objections to the drawings are withdrawn in view of Applicant's amendments to the drawings.
6. The objections to the specification are withdrawn in view of Applicant's amendments to the specification.
7. The objection to Claim 1 is withdrawn in view of Applicant's amendments to the claim.
8. The 35 U.S.C. § 112, second paragraph, rejections of Claims 2, 6, 7, 9, 10, 13, 18, 24, 26, and 29 are withdrawn in view of Applicant's amendments to the claims.

Response to Amendment

Claim Objections

9. **Claims 13 and 14** are objected to because of the following informalities:
 - **Claim 13** recites the limitation "the controlled devices." Applicant is advised to change this limitation to read "the plurality of controlled devices" for the purpose of providing it with proper explicit antecedent basis.
 - **Claim 14** depends on Claim 13 and, therefore, suffers the same deficiency as Claim 13.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. **Claims 1, 2, 4-10, 12-18, 20-22, 24-26, 28, and 29** are rejected under 35 U.S.C. 102(b) as being anticipated by **Moonen et al.** (WO 02/09350).

As per **Claim 1**, Moonen et al. disclose:

- a plurality of controlled devices (*see Figure 1: 104, 106, 108, 112, 114, and 116*); and
- an application server performing the installation and management of applications for the plurality of controlled devices by using a framework capable of providing integrated support to a variety of home network middleware (*see Figure 1: 118; Page 2: 19-23, "... a bridge performs the following function: detection of the addition of a device in either of the bridged networks; identification of the type of the added device; locating the translation module for the identified device type if the device is likely to be of interest to the other network; and installing the translation module on the other network according to the procedure required by the standard used by that network."*; Page 5: 8-11, "Fig. 1 is a diagram of a home network system 100 with a first cluster 102 of devices 104, 106 and 108 that comply with a first software architecture

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standard, herein-after called standard A. System 100 comprises a second cluster 110 of devices 112, 114 and 116 that comply with a second software architecture standard, herein-after called standard B.” and 26-28, “Bridge 118 comprises a software component 122, referred to as Installation Manager, that handles the installation of further software components needed to integrate B-device 116 into system 100.”).

As per **Claim 2**, the rejection of **Claim 1** is incorporated; and Moonen et al. further disclose:

- wherein the home network middleware is selected from a group consisting of HAVi and HWW (*see Page 7: 9 and 10, “The invention is explained below with an example illustrating the bridging of HAVi and Universal Plug and Play (UPnP) home networks with reference to Figs. 2. and 3.”).*

As per **Claim 4**, the rejection of **Claim 1** is incorporated; and Moonen et al. further disclose:

- wherein each of the controlled devices includes a home network middleware module for communicating with the application server (*see Page 7: 13-15, “In HAVi, a DCM (Device Control Module) is a software element that represents a single device or functionality on the HAVi network. The DCM exposes the HAVi defined APIs for that device.” and 20-22, “Universal Plug and Play (UPnP) is an open network architecture that is designed to enable simple, ad hoc communication among distributed devices and software applications from multiple vendors.”).*

As per **Claim 5**, the rejection of **Claim 1** is incorporated; and Moonen et al. further disclose:

- wherein each of the controlled devices includes positional information on an application file to be installed, and the application file is stored in a file server on the Internet (see Figure 1: 124; Figure 3: 306; Page 2: 30-33, "... the inventors propose a solution wherein a bridge is connected to a server, e.g., on the Internet. This server can offers a lookup service for some set of standards, and allows a bridge to locate and download the appropriate translation modules for use in the home network."; Page 9: 26 and 27, "In a step 228 downloaded CD proxy 226 is run on the execution environment of bridge 118. This involves installing an http server for the unique URL of CD proxy 226."; Page 10: 5 and 6, "In a step 306, the device description document of printer 206 is retrieved from the URL embodied in the announcement message ...").

As per **Claim 6**, the rejection of **Claim 5** is incorporated; and Moonen et al. further disclose:

- wherein the application server extracts the positional information on the application file from the plurality of controlled devices and downloads the application file from the file server to install a relevant application in response to the extracted positional information (see Page 5: 34 through Page 6: 1-4, "Similarly, Installation Manager 122 receives or retrieves information descriptive of newly added B-device 116. The descriptive information is possibly reformatted before being sent to a bridge server 124 via the Internet 126. In addition, bridge 118

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preferably provides information about the local execution environment of home network 100. This information is relevant to the software components that server 124 download onto bridge 118."; Page 7: 4-6, "Next, assume that a matching translation module 128 has been found it is downloaded to the bridge, installed on platform 120 and registered in accordance with the protocol of standard A. ").

As per **Claim 7**, the rejection of **Claim 5** is incorporated; and Moonen et al. further disclose:

- wherein the application server includes a home network middleware module for communicating with the plurality of controlled devices and extracting the positional information on the application file from the plurality of controlled devices (*see Figure 1: 128; Page 7: 4-8, "Next, assume that a matching translation module 128 has been found it is downloaded to the bridge, installed on platform 120 and registered in accordance with the protocol of standard A. This enables other applications and devices of A-cluster 102 to discover and use device 116 through module 128. The installation and registering of module 128 may be postponed until after it has been run on the execution environment of bridge 118.*"), an application loader module for downloading the application file from the file server in accordance with the extracted positional information on the application file (*see Figure 1: 122; Page 5: 26-28, "Bridge 118 comprises a software component 122, referred to as Installation Manager, that handles the installation of further software components needed to integrate B-device 116 into system 100.*"), and an application management module for controlling operations of the home network middleware module and the application loader module (*see Figure 1: 120; Page 7: 4-6, "Next, assume that a*

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matching translation module 128 has been found it is downloaded to the bridge, installed on platform 120 and registered in accordance with the protocol of standard A. ").

As per **Claim 8**, the rejection of **Claim 7** is incorporated; and Moonen et al. further disclose:

- wherein the home network middleware module and the application loader module are bundled into the framework (*see Figure 1: 118, 120, and 122; Page 5: 24-28, "... bridge 118 detects B-device 116 as a new addition, either because bridge 118 scans B-cluster 110 or its registry/directory/look-up service (not shown) periodically or because B-cluster 110 actively notifies bridge 118. Bridge 118 comprises a software component 122, referred to as Installation Manager, that handles the installation of further software components needed to integrate B-device 116 into system 100."* and 34 through Page 6: 1-4, "Similarly, Installation Manager 122 receives or retrieves information descriptive of newly added B-device 116. The descriptive information is possibly reformatted before being sent to a bridge server 124 via the Internet 126. In addition, bridge 118 preferably provides information about the local execution environment of home network 100. This information is relevant to the software components that server 124 downloads onto bridge 118."; Page 7: 4-8, "Next, assume that a matching translation module 128 has been found it is downloaded to the bridge, installed on platform 120 and registered in accordance with the protocol of standard A. This enables other applications and devices of A-cluster 102 to discover and use device 116 through module 128. The installation and registering of module 128 may be postponed until after it has been run on the execution environment of bridge 118.").

As per **Claim 9**, Moonen et al. disclose:

- a framework capable of providing integrated support to a variety of home network middleware is loaded on the application server (*see Figure 1: 118, 120, and 122; Page 5: 24-28, "... bridge 118 detects B-device 116 as a new addition, either because bridge 118 scans B-cluster 110 or its registry/directory/look-up service (not shown) periodically or because B-cluster 110 actively notifies bridge 118. Bridge 118 comprises a software component 122, referred to as Installation Manager, that handles the installation of further software components needed to integrate B-device 116 into system 100."* and 34 through Page 6: 1-4, "Similarly, Installation Manager 122 receives or retrieves information descriptive of newly added B-device 116. The descriptive information is possibly reformatted before being sent to a bridge server 124 via the Internet 126. In addition, bridge 118 preferably provides information about the local execution environment of home network 100. This information is relevant to the software components that server 124 downloads onto bridge 118."; Page 7: 4-8, "Next, assume that a matching translation module 128 has been found it is downloaded to the bridge, installed on platform 120 and registered in accordance with the protocol of standard A. This enables other applications and devices of A-cluster 102 to discover and use device 116 through module 128. The installation and registering of module 128 may be postponed until after it has been run on the execution environment of bridge 118."); and
- one of the plurality of controlled devices controls the application server and performs installation and management of applications for the plurality of controlled devices (*see Page 8: 16-18, "An announcement contains a URL to which service actions are to be sent: the control*

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server. In addition to that, CPs may query the UPnP network for particular device or services types or instances.” and 21-22, “After a CP has detected a service it wants to use (via SSDP), it controls the service by sending SCP actions to the control server URL or querying for state variables.”).

As per **Claim 10**, the rejection of **Claim 9** is incorporated; and Moonen et al. further disclose:

- wherein the home network middleware is selected from a group consisting of HAVi and HWW (*see Page 7: 9 and 10, “The invention is explained below with an example illustrating the bridging of HAVi and Universal Plug and Play (UPnP) home networks with reference to Figs. 2. and 3.”).*

As per **Claim 12**, the rejection of **Claim 9** is incorporated; and Moonen et al. further disclose:

- wherein an application file is stored in a file server on the Internet (*see Page 2: 30-33, “... the inventors propose a solution wherein a bridge is connected to a server, e.g., on the Internet. This server can offers a lookup service for some set of standards, and allows a bridge to locate and download the appropriate translation modules for use in the home network.”).*

As per **Claim 13**, the rejection of **Claim 12** is incorporated; and Moonen et al. further disclose:

- wherein the application server includes a home network middleware module for communicating with the plurality of controlled devices (*see Figure 1: 128; Page 7: 4-8, "Next, assume that a matching translation module 128 has been found it is downloaded to the bridge, installed on platform 120 and registered in accordance with the protocol of standard A. This enables other applications and devices of A-cluster 102 to discover and use device 116 through module 128. The installation and registering of module 128 may be postponed until after it has been run on the execution environment of bridge 118."*), an application loader module for downloading the application files from the file server under the control of the one of the plurality of controlled devices (*see Figure 1: 122; Page 5: 26-28, "Bridge 118 comprises a software component 122, referred to as Installation Manager, that handles the installation of further software components needed to integrate B-device 116 into system 100."*), and an application platform service module for controlling operations of the home network middleware module and the application loader module under the control of the one of the plurality of controlled devices (*see Figure 1: 120; Page 7: 4-6, "Next, assume that a matching translation module 128 has been found it is downloaded to the bridge, installed on platform 120 and registered in accordance with the protocol of standard A."*).

As per **Claim 14**, the rejection of **Claim 13** is incorporated; and Moonen et al. further disclose:

- wherein the home network middleware module and the application loader module of the application server are bundled into the framework (*see Figure 1: 118, 120, and 122; Page 5: 24-28, "... bridge 118 detects B-device 116 as a new addition, either because bridge 118 scans*

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B-cluster 110 or its registry/directory/look-up service (not shown) periodically or because B-cluster 110 actively notifies bridge 118. Bridge 118 comprises a software component 122, referred to as Installation Manager, that handles the installation of further software components needed to integrate B-device 116 into system 100." and 34 through Page 6: 1-4, "Similarly, Installation Manager 122 receives or retrieves information descriptive of newly added B-device 116. The descriptive information is possibly reformatted before being sent to a bridge server 124 via the Internet 126. In addition, bridge 118 preferably provides information about the local execution environment of home network 100. This information is relevant to the software components that server 124 downloads onto bridge 118."; Page 7: 4-8, "Next, assume that a matching translation module 128 has been found it is downloaded to the bridge, installed on platform 120 and registered in accordance with the protocol of standard A. This enables other applications and devices of A-cluster 102 to discover and use device 116 through module 128. The installation and registering of module 128 may be postponed until after it has been run on the execution environment of bridge 118.").

As per **Claim 15**, the rejection of **Claim 9** is incorporated; and Moonen et al. further disclose:

- wherein each of the plurality of controlled devices includes a home network middleware module for communicating with the application server (see Figure 1: 128; Page 7: 4-8, "Next, assume that a matching translation module 128 has been found it is downloaded to the bridge, installed on platform 120 and registered in accordance with the protocol of standard A. This enables other applications and devices of A-cluster 102 to discover and use device 116

through module 128. The installation and registering of module 128 may be postponed until after it has been run on the execution environment of bridge 118. ”), and an application management module for installing a new application or managing an already installed application by controlling the application server (see Figure 1: 120; Page 7: 4-6, “Next, assume that a matching translation module 128 has been found it is downloaded to the bridge, installed on platform 120 and registered in accordance with the protocol of standard A. ”).

As per **Claim 16**, the rejection of **Claim 15** is incorporated; and Moonen et al. further disclose:

- wherein the application management module determines a location where a new application file is downloaded and then requests the application server to install the new application (see Page 7: 4-8, “Next, assume that a matching translation module 128 has been found it is downloaded to the bridge, installed on platform 120 and registered in accordance with the protocol of standard A. This enables other applications and devices of A-cluster 102 to discover and use device 116 through module 128. The installation and registering of module 128 may be postponed until after it has been run on the execution environment of bridge 118. ”).

As per **Claim 17**, Moonen et al. disclose:

- detecting connection of the plurality of controlled devices with a home network by an application server loaded with a framework capable of providing integrated support to a variety of home network middleware (see Page 5: 24-26, “... bridge 118 detects B-device 116 as a new

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addition, either because bridge 118 scans B-cluster 110 or its registry/directory/look-up service (not shown) periodically or because B-cluster 110 actively notifies bridge 118.”); and

- installing the application necessary for controlling the plurality of controlled devices by the application server (*see Page 7: 4-8, “Next, assume that a matching translation module 128 has been found it is downloaded to the bridge, installed on platform 120 and registered in accordance with the protocol of standard A. This enables other applications and devices of A-cluster 102 to discover and use device 116 through module 128. The installation and registering of module 128 may be postponed until after it has been run on the execution environment of bridge 118.”).*

As per **Claim 18**, the rejection of **Claim 17** is incorporated; and Moonen et al. further disclose:

- wherein the home network middleware is selected from a group consisting of HAVi and HWW (*see Page 7: 9 and 10, “The invention is explained below with an example illustrating the bridging of HAVi and Universal Plug and Play (UPnP) home networks with reference to Figs. 2. and 3.”).*

As per **Claim 20**, the rejection of **Claim 17** is incorporated; and Moonen et al. further disclose:

- wherein the framework provides Internet access services and home network middleware services (*see Page 2: 19-23, “... a bridge performs the following function: detection of the addition of a device in either of the bridged networks; identification of the type of the*

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added device; locating the translation module for the identified device type if the device is likely to be of interest to the other network; and installing the translation module on the other network according to the procedure required by the standard used by that network.” and 30-33, “... the inventors propose a solution wherein a bridge is connected to a server, e.g., on the Internet. This server can offers a lookup service for some set of standards, and allows a bridge to locate and download the appropriate translation modules for use in the home network.”).

As per **Claim 21**, the rejection of **Claim 17** is incorporated; and Moonen et al. further disclose:

- extracting positional information on an application file necessary for controlling the plurality of controlled devices, by the application server (*see Page 5: 34 through Page 6: 1-4, “Similarly, Installation Manager 122 receives or retrieves information descriptive of newly added B-device 116. The descriptive information is possibly reformatted before being sent to a bridge server 124 via the Internet 126. In addition, bridge 118 preferably provides information about the local execution environment of home network 100. This information is relevant to the software components that server 124 downloads onto bridge 118.”; Page 7: 4-6, “Next, assume that a matching translation module 128 has been found it is downloaded to the bridge, installed on platform 120 and registered in accordance with the protocol of standard A.”);*
- downloading the application file from the file server in accordance with the extracted positional information by the application server (*see Page 5: 34 through Page 6: 1-4, “Similarly, Installation Manager 122 receives or retrieves information descriptive of newly added B-device 116. The descriptive information is possibly reformatted before being sent to a bridge server 124*

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via the Internet 126. In addition, bridge 118 preferably provides information about the local execution environment of home network 100. This information is relevant to the software components that server 124 downloads onto bridge 118.”; Page 7: 4-6, “Next, assume that a matching translation module 128 has been found it is downloaded to the bridge, installed on platform 120 and registered in accordance with the protocol of standard A.”); and

- *executing the downloaded application file and installing a relevant application by the application server (see Page 7: 4-8, “Next, assume that a matching translation module 128 has been found it is downloaded to the bridge, installed on platform 120 and registered in accordance with the protocol of standard A. This enables other applications and devices of A-cluster 102 to discover and use device 116 through module 128. The installation and registering of module 128 may be postponed until after it has been run on the execution environment of bridge 118.”).*

As per **Claim 22**, the rejection of **Claim 21** is incorporated; and Moonen et al. further disclose:

- *wherein each of the plurality of controlled devices includes the positional information on the application file, and the application file is stored in a file server on the Internet (see Figure 1: 124; Figure 3: 306; Page 2: 30-33, “... the inventors propose a solution wherein a bridge is connected to a server, e.g., on the Internet. This server can offers a lookup service for some set of standards, and allows a bridge to locate and download the appropriate translation modules for use in the home network.”; Page 9: 26 and 27, “In a step 228 downloaded CD proxy 226 is run on the execution environment of bridge 118. This involves installing an http server for the*

unique URL of CD proxy 226.”; Page 10: 5 and 6, “In a step 306, the device description document of printer 206 is retrieved from the URL embodied in the announcement message ...”).

As per **Claim 24**, Moonen et al. disclose:

- searching for the application server with an application platform service module, by one of the plurality of controlled devices (*see Page 5: 24-26, “... bridge 118 detects B-device 116 as a new addition, either because bridge 118 scans B-cluster 110 or its registry/directory/look-up service (not shown) periodically or because B-cluster 110 actively notifies bridge 118.”*); and
- controlling the application server to install the application for the plurality of controlled devices, by the one of the plurality of controlled devices (*see Page 7: 4-8, “Next, assume that a matching translation module 128 has been found it is downloaded to the bridge, installed on platform 120 and registered in accordance with the protocol of standard A. This enables other applications and devices of A-cluster 102 to discover and use device 116 through module 128. The installation and registering of module 128 may be postponed until after it has been run on the execution environment of bridge 118.”*).

As per **Claim 25**, the rejection of **Claim 24** is incorporated; and Moonen et al. further disclose:

- wherein the application server is loaded with a framework capable of providing integrated support to a variety of home network middleware (*see Page 2: 19-23, “... a bridge performs the following function: detection of the addition of a device in either of the bridged*

networks; identification of the type of the added device; locating the translation module for the identified device type if the device is likely to be of interest to the other network; and installing the translation module on the other network according to the procedure required by the standard used by that network."

As per **Claim 26**, the rejection of **Claim 25** is incorporated; and Moonen et al. further disclose:

- wherein the home network middleware is selected from a group consisting of HAVi and HWW (*see Page 7: 9 and 10, "The invention is explained below with an example illustrating the bridging of HAVi and Universal Plug and Play (UPnP) home networks with reference to Figs. 2. and 3."*).

As per **Claim 28**, the rejection of **Claim 25** is incorporated; and Moonen et al. further disclose:

- wherein the framework provides controlled device access services and home network middleware services (*see Page 2: 19-23, "... a bridge performs the following function: detection of the addition of a device in either of the bridged networks; identification of the type of the added device; locating the translation module for the identified device type if the device is likely to be of interest to the other network; and installing the translation module on the other network according to the procedure required by the standard used by that network."*).

As per **Claim 29**, the rejection of **Claim 24** is incorporated; and Moonen et al. further disclose:

- determining whether it is necessary to install a new application, by a controlled device (see Page 5: 34 through Page 6: 1, “Similarly, Installation Manager 122 receives or retrieves information descriptive of newly added B-device 116.”);
- if it is necessary to install the new application, requesting the application server to install the new application, by a controlled device (see Page 6: 8-10, “Based on this information server 124 is able to select the proper translation module or modules that fits or fit in best with the network environment of system 100.”);
- downloading a relevant application file from a file server according to the request for installing the new application (see Page 5: 34 through Page 6: 1-4, “Similarly, Installation Manager 122 receives or retrieves information descriptive of newly added B-device 116. The descriptive information is possibly reformatted before being sent to a bridge server 124 via the Internet 126. In addition, bridge 118 preferably provides information about the local execution environment of home network 100. This information is relevant to the software components that server 124 download onto bridge 118.”; Page 7: 4-6, “Next, assume that a matching translation module 128 has been found it is downloaded to the bridge, installed on platform 120 and registered in accordance with the protocol of standard A.”); and
- controlling the application server to install the new application, by a controlled device (see Page 7: 4-8, “Next, assume that a matching translation module 128 has been found it is downloaded to the bridge, installed on platform 120 and registered in accordance with the protocol of standard A. This enables other applications and devices of A-cluster 102 to discover

and use device 116 through module 128. The installation and registering of module 128 may be postponed until after it has been run on the execution environment of bridge 118.”).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. **Claims 3, 11, 19, and 27** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Moonen et al.** (WO 02/09350) in view of **Elson et al.** (US 2003/0014521).

As per **Claim 3**, the rejection of **Claim 1** is incorporated; however, **Moonen et al.** do not disclose:

- wherein the framework is an OSGi framework.

Elson et al. disclose:

- wherein the framework is an OSGi framework (*see Paragraph [0075], “The platform software architecture supports for example Java and OSGi standards directly and eliminates the need for non-standard and proprietary extensions.”*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of **Elson et al.** into the teaching of **Moonen et al.** to include wherein the framework is an OSGi framework. The modification would be obvious

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because one of ordinary skill in the art would be motivated to provide effective provisioning of software to conventional fixed based clients that are equipped with continuous network access (see Elson et al. – Paragraph [0012]).

As per **Claim 11**, the rejection of **Claim 9** is incorporated; however, Moonen et al. do not disclose:

- wherein the framework is an OSGi framework.

Elson et al. disclose:

- wherein the framework is an OSGi framework (see Paragraph [0075], “The platform software architecture supports for example Java and OSGi standards directly and eliminates the need for non-standard and proprietary extensions.”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Elson et al. into the teaching of Moonen et al. to include wherein the framework is an OSGi framework. The modification would be obvious because one of ordinary skill in the art would be motivated to provide effective provisioning of software to conventional fixed based clients that are equipped with continuous network access (see Elson et al. – Paragraph [0012]).

As per **Claim 19**, the rejection of **Claim 17** is incorporated; however, Moonen et al. do not disclose:

- wherein the framework is an OSGi framework.

Elson et al. disclose:

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- wherein the framework is an OSGi framework (*see Paragraph [0075], "The platform software architecture supports for example Java and OSGi standards directly and eliminates the need for non-standard and proprietary extensions."*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Elson et al. into the teaching of Moonen et al. to include wherein the framework is an OSGi framework. The modification would be obvious because one of ordinary skill in the art would be motivated to provide effective provisioning of software to conventional fixed based clients that are equipped with continuous network access (*see Elson et al. – Paragraph [0012]*).

As per **Claim 27**, the rejection of **Claim 25** is incorporated; however, Moonen et al. do not disclose:

- wherein the framework is an OSGi framework.

Elson et al. disclose:

- wherein the framework is an OSGi framework (*see Paragraph [0075], "The platform software architecture supports for example Java and OSGi standards directly and eliminates the need for non-standard and proprietary extensions."*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Elson et al. into the teaching of Moonen et al. to include wherein the framework is an OSGi framework. The modification would be obvious because one of ordinary skill in the art would be motivated to provide effective provisioning of

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software to conventional fixed based clients that are equipped with continuous network access

(see Elson et al. – Paragraph [0012]).

14. **Claims 23 and 30** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Moonen et al.** (WO 02/09350).

As per **Claim 23**, the rejection of **Claim 17** is incorporated; and Moonen et al. further disclose:

- an application management step of executing and updating the application installed in the application server (see Page 4: 16-18, “When the new translation modules become available on the server, bridges that have sent requests for translation modules in the past with which the server could not comply, can now be notified of an upgrade.”; Page 7: 6-8, “This enables other applications and devices of A-cluster 102 to discover and use device 116 through module 128. The installation and registering of module 128 may be postponed until after it has been run on the execution environment of bridge 118.”).

However, Moonen et al. do not disclose:

- an application management step of stopping and deleting the application installed in the application server.

Official Notice is taken that it is old and well-known within the computing art to stop and delete an application. It is very common to provide options to stop and/or delete a software application installed in a computer. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include an application management step of

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stopping and deleting the application installed in the application server. The modification would be obvious because one of ordinary skill in the art would be motivated to provide full application support for proper maintenance and maximum extensibility.

As per **Claim 30**, the rejection of **Claim 24** is incorporated; and Moonen et al. further disclose:

- an application management step of executing and updating the application installed in the application server (*see Page 4: 16-18, "When the new translation modules become available on the server, bridges that have sent requests for translation modules in the past with which the server could not comply, can now be notified of an upgrade."; Page 7: 6-8, "This enables other applications and devices of A-cluster 102 to discover and use device 116 through module 128. The installation and registering of module 128 may be postponed until after it has been run on the execution environment of bridge 118."*).

However, Moonen et al. do not disclose:

- an application management step of stopping and deleting the application installed in the application server.

Official Notice is taken that it is old and well-known within the computing art to stop and delete an application. It is very common to provide options to stop and/or delete a software application installed in a computer. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include an application management step of stopping and deleting the application installed in the application server. The modification would

be obvious because one of ordinary skill in the art would be motivated to provide full application support for proper maintenance and maximum extensibility.

Response to Arguments

15. Applicant's arguments filed on January 29, 2007 have been fully considered, but they are not persuasive.

In the remarks, Applicant argues that:

a) The Examiner alleges that this feature is disclosed by Figure 1, element 118 and on page 5, lines 26-28. However, in contrast to the Examiner's assertion, Applicant submits that neither the portion cited by the Examiner nor any other portion of Moonen disclose an application server performing the installation and management of applications for the plurality of controlled devices.

In particular, the portion cited by the Examiner discloses a bridge 118, which contains software components 120 including translation modules that permit the interaction between devices that comply with a first software architecture and devices that comply with a second software architecture. (p. 5, lines 8-16). The bridge 118 also includes a software component 122 that handles the installation of software components needed to integrate devices into a system.

However, neither the software components 120 and 122, which comprise translation modules and installation modules, constitute applications for a plurality of controlled devices. To the contrary, these software components are merely system components that permit linking

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between disparate applications. No portion of Moonen discloses that these software components 120 and 122 are related to applications for the controlled devices.

Examiner's response:

a) Examiner disagrees. Moonen et al. clearly disclose an application server performing the installation and management of applications for the plurality of controlled devices by using a framework capable of providing integrated support to a variety of home network middleware (*see Figure 1: 118; Page 2: 19-23, "... a bridge performs the following function: detection of the addition of a device in either of the bridged networks; identification of the type of the added device; locating the translation module for the identified device type if the device is likely to be of interest to the other network; and installing the translation module on the other network according to the procedure required by the standard used by that network."*; Page 5: 8-11, "*Fig. 1 is a diagram of a home network system 100 with a first cluster 102 of devices 104, 106 and 108 that comply with a first software architecture standard, herein-after called standard A. System 100 comprises a second cluster 110 of devices 112, 114 and 116 that comply with a second software architecture standard, herein-after called standard B.*" and 26-28, "*Bridge 118 comprises a software component 122, referred to as Installation Manager, that handles the installation of further software components needed to integrate B-device 116 into system 100.*").

Note that both the translation modules and the installation modules are installed for a new device to be integrated into the home network system. The translation modules and the installation modules are interpreted as "applications" under the broadest reasonable interpretation.

In the remarks, Applicant argues that:

b) The Examiner also cites page 8, lines 16-22 to support this rejection. However, this portion of Moonen discusses a CP (control point), which after detecting a service it wishes to use, controls the service by sending SCP actions to the control server URL. Despite the Examiner's contention, this portion of Moonen fails to disclose where a controlled device controls an application server and performs installation and management of applications. In fact, Moonen fails to disclose any application server.

Examiner's response:

b) Examiner disagrees. Moonen et al. clearly disclose one of the plurality of controlled devices controls the application server and performs installation and management of applications for the plurality of controlled devices (*see Page 8: 16-18, "An announcement contains a URL to which service actions are to be sent: the control server. In addition to that, CPs may query the UPnP network for particular device or services types or instances." and 21-22, "After a CP has detected a service it wants to use (via SSDP), it controls the service by sending SCP actions to the control server URL or querying for state variables."*). Note that a CP controls the control server by sending SCP actions to execute a service.

In the remarks, Applicant argues that:

c) Regarding claims 23 and 30, the Examiner concedes that Moonen fails to disclose the method comprising an application management step of stopping and deleting the application installed in the application server. (Office Action, p. 20 and 21) In order to compensate for this

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deficiency, the Examiner alleges that it would have been obvious to one of ordinary skill in the art to incorporate a step of stopping and deleting the application installed in the application server since Moonen already incorporates the step of executing and updating the application installed in the application server. As a motivation, the Examiner alleges that one of skill would be motivated to incorporate a step of stopping and deleting the application installed in the application server in order to provide full application support for proper maintenance and maximum extensibility.

First, Applicant submits that the Examiner has failed to establish *prima facie* obviousness because the Examiner has provided no logical basis as to why stopping and deleting the application installed would or could even permit full application support for proper maintenance and maximum extensibility.

Examiner's response:

c) Examiner disagrees. Moonen et al. clearly disclose an application management step of executing and updating the application installed in the application server (*see Page 4: 16-18, "When the new translation modules become available on the server, bridges that have sent requests for translation modules in the past with which the server could not comply, can now be notified of an upgrade."*; Page 7: 6-8, "This enables other applications and devices of A-cluster 102 to discover and use device 116 through module 128. The installation and registering of module 128 may be postponed until after it has been run on the execution environment of bridge 118.""). One of ordinary skill in the art would be motivated to extend the control of the

application to allow it to be stopped and/or deleted as desired by a user. Thus, the application can be thoroughly controlled and maintained.

Conclusion

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Qing Chen whose telephone number is 571-270-1071. The Examiner can normally be reached on Monday through Thursday from 7:30 AM to 4:00 PM. The Examiner can also be reached on alternate Fridays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Wei Zhen, can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

QC / AC
September 3, 2007


WEI ZHEN
SUPERVISORY PATENT EXAMINER